TEXAS DEPARTMENT OF INSURANCE

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PRODUCT EVALUATION Effective July 1, 2011

WIN-880

*The following product has been evaluated for compliance with the wind loads specified in the **International Residential Code (IRC)** and the **International Building Code (IBC)**. This product shall be subject to reevaluation 3 years **August 2012**.*

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

Series 175 Aluminum Twin Single Hung Tilt Windows with a Series 101 Fixed Transom, Non-impact Resistant, manufactured by

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will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

PRODUCT DESCRIPTION

This evaluation report is for a Series 175 aluminum twin single hung tilt window with a Series 101 aluminum fixed transom. The window assembly evaluated in this report is a non-impact resistant window. This evaluation report includes a Series 175 aluminum twin single hung tilt window with a Series 101 aluminum fixed transom based on the following tested configuration:

General Description:

System	Description	Label Rating
1	Series 175 Aluminum Twin Single Hung Tilt Window with a Series 101 Aluminum Fixed Transom	H-R50 80 x 108 (MULL)

Product Dimension:

System	Overall Size	Single Hung Frame Size (Each)	Single Hung Operable Sash Size (Each)	Single Hung Fixed Daylight Opening Size (Each)
1	80" x 108"	40" x 72"	38 ½" x 30 ⅜"	36 ¾" x 27 7/16"

System	Transom Frame Size
1	80" x 36"

Glazing Description:

System	Glass Construction [1]	Glazing Method [2]
1	Single Hung:IG-1 Transom: IG-2	Single Hung: GM-1 Transom: GM-2

Note: [1] See the "Glass Description Key" for the glazing construction.
[2] See the "Glazing Method Key" for the glazing method description.

Glass Construction Key:

IG-1: The fixed and operable sashes contain a sealed insulating glass unit. The sealed insulating glass units are comprised of two double strength ($\frac{1}{8}$") annealed glass lites separated by a Truseal Swiggle strip aluminum spacer system. The glass thickness and type used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

IG-2: The window contains a sealed insulating glass unit. The sealed insulating glass unit is comprised of two $\frac{3}{16}$" annealed glass lites separated by a Truseal Swiggle strip aluminum spacer system. The glass thickness and type used in the tested assembly and in smaller assemblies shall comply with ASTM E 1300-04.

Glazing Method Key:

GM-1: The insulating glass units are exterior glazed with a silicone backbedding at the interior long the full perimeter of the insulating glass unit. The insulating glass units are secured in place with vinyl snap-in glazing beads.

GM-2: The insulating glass unit is exterior glazed with a silicone backbedding at the interior along the full perimeter of the insulating glass unit. The insulating glass unit is secured in place with aluminum glazing bead at the exterior. The glazing bead is secured to the framed with screws spaced 2 inches from each end and 12 inches on center along the perimeter of the window.

Frame Construction: The frame members are manufactured from extruded aluminum. The frame corners are coped, butted, and secured together with two (2) screws per corner. The fixed interlock is secured to the frame side jambs with one (1) screw per end.

Sash Construction: The sash members are manufactured from extruded aluminum. The sash corners are coped, butted, and secured together with one (1) screw per corner.

Mullion: The transom frame sill is secured to the twin single hung frame head with screws located 1 inch from each end and 12 inches on center along the exterior and the interior. The single hung windows are mulled along the frame side jambs with an extruded aluminum heavy mull that is secured to each frame side jamb with two (2) rows of screws located 1 inch from each end and 12 inches on center along the side jambs at the mull exterior face and one (1) screw located 2 inches from the fixed meeting rail and 2 inches from the sill.

Reinforcement: None.

Hardware (each single hung window):

- Cam locks; Two (2) required; Each located 6 inches from each end of the sash top rail. Secured to the frame with two (2) screws each.
- Keeper groove; Two (2) required; Located on the fixed interlock rail opposite the cam lock locations.
- Spiral balance; Two (2) required; One located in each frame side jamb.

Hardware (each single hung window) - continued:

- Pivot bar; Two (2) required; Located at the sash bottom rail.
- Tilt latch; Two (2) required; Located on the sash top rail.

Product Identification: A certification program label (AAMA) will be affixed to the window. The certification program label includes the manufacturer's code name (**KR-1**); product name: **Series 175 Twin Single Hung w/Transom**; performance characteristics; and approved inspection agency to indicate compliance with the requirements of AAMA/NWWDA 101/I.S.2.

LIMITATIONS

Design pressures:

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressures (psf)
1	80	108	± 50

Impact Resistance: These window assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These window assemblies will need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

Acceptance of Smaller Assemblies: Window assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General: The window assembly shall be installed in accordance with the manufacturer's installation instructions and this evaluation report. Detailed installation instructions and drawings are available from the manufacturer.

Installation:

Window: The wall framing members shall be minimum Spruce-Pine-Fir (SPF) dimension lumber. The window shall be mounted to the wood wall framing members using the nailing fin of the window with minimum No. 6 screws. The fasteners shall be located approximately 2 inches from each corner and approximately 12 inches on center along the perimeter of the window assembly. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing members.

Mullions:

Vertical: The heavy mull is anchored to the wall framing at the sill with a heavy mull aluminum L-shaped anchor bracket (1.175" x 0.955" x 0.080"). The heavy mull anchor bracket is secured to the heavy mull with two (2) No. 6 x 7/16" screws and to the wall framing with two (2) No. 8 screws. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing members.

Horizontal: A heavy mull aluminum L-shaped anchor bracket (1.175" x 0.955" x 0.080") is secured to each end of the transom sill with two (2) No. 6 x 7/16" screws and to the wall framing with two (2) No. 8 screws. The fasteners shall be long enough to penetrate a minimum of 1 ½ inches into the wall framing members.

Note: The manufacturer's installation instructions shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.